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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/522,109	01/24/2005	Yasuji Taketsuna	122487	9497

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EXAMINER	
PRESTON, ERIK D	
ART UNIT	**PAPER NUMBER**
2834	

DATE MAILED: 09/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/522,109	TAKETSUNA ET AL.	
	Examiner	Art Unit	
	Erik D. Preston	2834	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 June 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-14* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-14* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Specification

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1 & 2 are rejected under 35 U.S.C. 102(e) as being anticipated by Kikuchi et al. (US 6515384 supplied by applicant).

With respect to claim 1, Kikuchi teaches a motor for a vehicle comprising: A rotor (Fig. 11, #2) rotating around a horizontal rotation shaft; a stator core (Fig. 11, #5) having a plurality of slots (Fig. 14, #6) in a direction of said rotation shaft in a manner facing a peripheral surface of the rotor; a stator coil (Fig. 11, #8) wound inside said slots; a cooling passage (Fig. 12, #12) formed such that said stator coil comes into contact with a cooling liquid; a feeding means (Col. 3, Lines 17-21) for feeding the cooling liquid through said cooling passage; and a discharge portion (Fig. 12, # 17) of said cooling liquid provided in an uppermost portion of said cooling passage, the cooling passage.

With respect to claim 2, Kikuchi teaches the motor of claim 1, and Kikuchi teaches said cooling passage comprising slots with openings that are covered with sealing members (Fig. 14, #14).

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kikuchi et al. (US 6515384 supplied by applicant).

With respect to claim 1, Kikuchi teaches a motor for a vehicle comprising: A rotor (Fig. 1, #2) rotating around a horizontal rotation shaft; a stator core (Fig. 1, #5) having a plurality of slots (Fig. 3, #6) in a direction of said rotation shaft in a manner facing a peripheral surface of the rotor; a stator coil (Fig. 1, #8) wound inside said slots; a cooling passage (Fig. 5, #12) formed such that said stator coil comes into contact with a cooling liquid; a feeding means (Col. 3, Lines 17-21) for feeding the cooling liquid through said cooling passage; and a discharge portion (Fig. 1, # 17) of said cooling liquid, but it doesn't teach said discharge portion being provided at an uppermost portion of said cooling passage. It would have been obvious to one of ordinary skill in the art at the time of the invention to switch the location of the discharge and supply portions of Kikuchi since it has been held that changing the position of an element of an invention is prima facie obvious in the absence of new or unexpected results (In re Japikse, 181 F.2d 1019, 86 USPQ 70 (CCPA 1950)). Since the fluid is pumped into the cooling passage, and Kikuchi never states that it is vital for the fluid to run from the

"uppermost portion" of the motor to the "lowermost portion" (in fact, in Kikuchi's third embodiment, the discharge and supply portions are both located on an upper portion of the motor), it is believed that the positioning of the supply portion on the upper part of the motor, and discharge portions on the lower part of the motor is not vital to the operation of the apparatus so long as all of the coils come in contact with the cooling liquid.

With respect to claim 2, Kikuchi teaches the motor of claim 1, and Kikuchi teaches said cooling passage comprising slots with openings that are covered with sealing members (Fig. 3, #14).

With respect to claim 3, Kikuchi teaches the motor of claim 2, and Kikuchi teaches a supply portion (Fig. 1 #16) of said cooling liquid, but it does not teach said supply portion being in a lowermost portion of said cooling passage.

With respect to claim 4, Kikuchi teaches the motor of claim 3, wherein the feeding means includes pipes (as seen in Fig. 1) connected to said discharge portion and said supply portion respectively, and supply means for supplying said cooling liquid discharged from said discharge portion to said supply portion, and said motor further comprises prevention means (the solid walls of the pipe (which inherently exist in the pipes as taught by Kikuchi since it is not disclosed that they leak)) for preventing leakage of said cooling liquid, provided in said pipe.

With respect to claim 5, Kikuchi teaches the motor of claim 4, wherein said supply means is implemented by a pump (Col. 3, Lines 17-21) circulating said cooling liquid, and said prevention means is provided at some portion of the pipe from a

protruded outlet of said pump to an inlet of said storage means, but it doesn't teach that said pipe is provided with storage means for storing said cooling liquid in such a manner that said cooling liquid is in contact with air. However, It was well in the art at the time of the invention to use a storage means for storing said cooling liquid in such a manner that said cooling liquid is in contact with air (such as is the case in the radiator of an automobile). It would have been obvious to one of ordinary skill in the art at the time of the invention to store the cooling liquid in a radiator because it would allow the liquid to dissipate the heat that it picked up from the coils.

With respect to claims 6 & 7, Kikuchi teaches the motor of claim 5, wherein said prevention means is provided in both the discharge and supply portions.

Claims 8-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kikuchi et al. (US 6515384 supplied by applicant) in view of Kimura et al. (US 20020145353). Kikuchi teaches the motor of claims 1-7, but doesn't teach that the motor is implemented as a distributed winding motor. However, Kimura teaches a motor that has distributed windings (Paragraph 4). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the motor of Kikuchi in view of the windings as taught by Kimura because they make it possible to bring the induced voltage waveform closer to sinusoidal waveform by improving the stator wiring layout and to reduce distortion rate (Kimura, Paragraph 4).

Response to Arguments

Applicant's arguments, see Page 2, Line 24 – Page 3, Line 9, filed 06/16/2005, with respect to the rejection(s)of claim(s) 1-7 under Tsuruhara in view of Kikuchi have

been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of the third embodiment of the Kikuchi reference.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Erik D. Preston whose telephone number is (571)272-8393. The examiner can normally be reached on Monday through Friday 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg can be reached on (571)272-2044. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

07/06/2005

DARREN SCHUBERG
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